

### **Amendments to the Claims:**

This listing of claims will replace, without prejudice, all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently Amended) A method for detecting and reducing noise in a battery voltage signal comprising:

measuring the battery voltage signal at a predefined sampling rate to provide measured values;

storing the measured values in a buffer memory; ~~and~~

checking whether a number of the measured values stored in the buffer memory has reached a threshold value;

forming a median value of the stored measured values in a time-slot pattern slower than the sampling rate ~~to obtain an averaged signal value~~ if the number of values stored in the buffer memory has reached the threshold value; and

compensating for noise in the measured values using the median value.

2. (Currently Amended) The method according to claim 1, further comprising phase compensating the ~~averaged~~ median signal value.

3. (Original) The method according to claim 2, wherein the phase compensation includes a compensation algorithm of the form:

$$y(k)=x(k)+\frac{1}{2}*[x(k)-x(k-1)],$$

x(k) being a battery voltage value at an instant k averaged by forming a median, x(k-1) being a battery voltage value at an instant k-1 averaged by forming a median, and y(k) being a compensated averaged battery voltage value at the instant k.

4. (Canceled)

5. (Canceled)

6. (Currently Amended) A device for detecting and reducing noise in a battery voltage signal comprising:

means for measuring the battery voltage signal of a predefined sampling rate to provide measured signal values;

means for storing the measured signal values; and

means for checking whether a number of the measured values stored in the means for storing has reached a threshold value; and

means for forming a median value of the stored measured signal values in a time-slot pattern slower than the sampling rate ~~to obtain an averaged signal value~~ if the number of values stored in the buffer memory has reached the threshold value.

7. (Original) The device according to claim 6, wherein the means for storing includes a ring memory.

8. (Canceled)

9. (Canceled)